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[54] APPARATUS FOR GASIFICATION OF
COMBUSTION AND WASTE MATERIALS
CONTAINING CARBON AND ASH

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C07C 1/00

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48/197 R; 110/346; 585/240; 422/139

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ABSTRACT

A device for utilizing combustion, residual and waste materials containing carbon and ash by gasification with an oxygen-containing oxidizing agent at temperatures above the melting point of the inorganic parts in a reaction chamber and at a pressure between ambient pressure and 60 bar. The reaction chamber contour is formed in part by a refractory-grade lining and in part by a cooling system comprising cooling coils connected in a gas-tight manner. The coils are coated with a thin layer of a ceramic mass that conducts heat well on a side facing the reaction chamber. The cooling coils are operated, while being cooled by pressurized water, below or above the boiling point of the cooling water.

7 Claims, 3 Drawing Sheets

